



IFWO

RAW SEQUENCE LISTING

DATE: 09/23/2004

PATENT APPLICATION: US/10/783,128

TIME: 16:43:09

Input Set : N:\FATIMA\10783128.txt

Output Set: N:\CRF4\09232004\J783128.raw

3 <110> APPLICANT: Sirna Therapeutics, Inc.
 4 McSwiggen, James
 6 <120> TITLE OF INVENTION: RNA Interference Mediated Treatment of Polyglutamine (PolyQ)
 Repeat
 7 Expansion Diseases Using Short Interfering Nucleic Acid (siNA)
 9 <130> FILE REFERENCE: 04-105 (400.146)
 11 <140> CURRENT APPLICATION NUMBER: US 10/783,128
 12 <141> CURRENT FILING DATE: 2004-02-20
 14 <150> PRIOR APPLICATION NUMBER: US 10/757,803
 15 <151> PRIOR FILING DATE: 2004-01-14
 17 <150> PRIOR APPLICATION NUMBER: US 10/720,448
 18 <151> PRIOR FILING DATE: 2003-11-24
 20 <150> PRIOR APPLICATION NUMBER: US 10/693,059
 21 <151> PRIOR FILING DATE: 2003-10-23
 23 <150> PRIOR APPLICATION NUMBER: US 10/444,853
 24 <151> PRIOR FILING DATE: 2003-05-23
 26 <150> PRIOR APPLICATION NUMBER: US 10/652,791
 27 <151> PRIOR FILING DATE: 2003-03-29
 29 <150> PRIOR APPLICATION NUMBER: US 10/422,704
 30 <151> PRIOR FILING DATE: 2003-04-24
 32 <150> PRIOR APPLICATION NUMBER: US 10/417,012
 33 <151> PRIOR FILING DATE: 2003-04-16
 35 <150> PRIOR APPLICATION NUMBER: PCT/US03/05346
 36 <151> PRIOR FILING DATE: 2003-02-20
 38 <150> PRIOR APPLICATION NUMBER: PCT/US03/05028
 39 <151> PRIOR FILING DATE: 2003-02-20
 41 <150> PRIOR APPLICATION NUMBER: US 60/358,580
 42 <151> PRIOR FILING DATE: 2002-02-20
 44 <150> PRIOR APPLICATION NUMBER: US 60/363,124
 45 <151> PRIOR FILING DATE: 2002-03-11
 47 <150> PRIOR APPLICATION NUMBER: US 60/386,782
 48 <151> PRIOR FILING DATE: 2002-06-06
 50 <150> PRIOR APPLICATION NUMBER: US 60/406,784
 51 <151> PRIOR FILING DATE: 2002-08-29
 53 <150> PRIOR APPLICATION NUMBER: US 60/408,378
 54 <151> PRIOR FILING DATE: 2002-09-05
 56 <150> PRIOR APPLICATION NUMBER: US 60/409,293
 57 <151> PRIOR FILING DATE: 2002-09-09
 59 <150> PRIOR APPLICATION NUMBER: US 60/440,129
 60 <151> PRIOR FILING DATE: 2003-01-15
 62 <150> PRIOR APPLICATION NUMBER: US 10/427,160
 63 <151> PRIOR FILING DATE: 2003-04-30
 65 <150> PRIOR APPLICATION NUMBER: PCT/US02/15876
 66 <151> PRIOR FILING DATE: 2002-05-17

(pg. 10-11)

ENTERED

RAW SEQUENCE LISTING

DATE: 09/23/2004

PATENT APPLICATION: US/10/783,128

TIME: 16:43:09

Input Set : N:\FATIMA\10783128.txt

Output Set: N:\CRF4\09232004\J783128.raw

68 <160> NUMBER OF SEQ ID NOS: 3577

70 <170> SOFTWARE: PatentIn version 3.1

72 <210> SEQ ID NO: 1

73 <211> LENGTH: 19

74 <212> TYPE: RNA

75 <213> ORGANISM: Artificial Sequence

77 <220> FEATURE:

78 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA

sense region

80 <400> SEQUENCE: 1

81 caaucaugcu gcccgcgcu 19

84 <210> SEQ ID NO: 2

85 <211> LENGTH: 19

86 <212> TYPE: RNA

87 <213> ORGANISM: Artificial Sequence

89 <220> FEATURE:

90 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA

sense region

92 <400> SEQUENCE: 2

93 aaucaugcug gccggcgug 19

96 <210> SEQ ID NO: 3

97 <211> LENGTH: 19

98 <212> TYPE: RNA

99 <213> ORGANISM: Artificial Sequence

101 <220> FEATURE:

102 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA

sense region

104 <400> SEQUENCE: 3

105 aucaugcugg ccggcgugg 19

108 <210> SEQ ID NO: 4

109 <211> LENGTH: 19

110 <212> TYPE: RNA

111 <213> ORGANISM: Artificial Sequence

113 <220> FEATURE:

114 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA

sense region

116 <400> SEQUENCE: 4

117 ucaugcuggc cggcguggc 19

120 <210> SEQ ID NO: 5

121 <211> LENGTH: 19

122 <212> TYPE: RNA

123 <213> ORGANISM: Artificial Sequence

125 <220> FEATURE:

126 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA

sense region

128 <400> SEQUENCE: 5

129 caugcuggcc ggcguggcc 19

132 <210> SEQ ID NO: 6

133 <211> LENGTH: 19

134 <212> TYPE: RNA

135 <213> ORGANISM: Artificial Sequence

137 <220> FEATURE:

138 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA

sense region

140 <400> SEQUENCE: 6

RAW SEQUENCE LISTING

DATE: 09/23/2004

PATENT APPLICATION: US/10/783,128

TIME: 16:43:09

Input Set : N:\FATIMA\10783128.txt

Output Set: N:\CRF4\09232004\J783128.raw

```

141 augcuggcccg gcguggccc                                19
144 <210> SEQ ID NO: 7
145 <211> LENGTH: 19
146 <212> TYPE: RNA
147 <213> ORGANISM: Artificial Sequence
149 <220> FEATURE:
150 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
152 <400> SEQUENCE: 7
153 ugcuggcccg cguggcccc                                19
156 <210> SEQ ID NO: 8
157 <211> LENGTH: 19
158 <212> TYPE: RNA
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
164 <400> SEQUENCE: 8
165 gcuggccggc guggccccg                                19
168 <210> SEQ ID NO: 9
169 <211> LENGTH: 19
170 <212> TYPE: RNA
171 <213> ORGANISM: Artificial Sequence
173 <220> FEATURE:
174 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
176 <400> SEQUENCE: 9
177 cuggccggcg uggccccgc                                19
180 <210> SEQ ID NO: 10
181 <211> LENGTH: 19
182 <212> TYPE: RNA
183 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
188 <400> SEQUENCE: 10
189 uggccggcgu ggccccgcc                                19
192 <210> SEQ ID NO: 11
193 <211> LENGTH: 19
194 <212> TYPE: RNA
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
200 <400> SEQUENCE: 11
201 ggccggcgug gccccgccu                                19
204 <210> SEQ ID NO: 12
205 <211> LENGTH: 19
206 <212> TYPE: RNA
207 <213> ORGANISM: Artificial Sequence
209 <220> FEATURE:
210 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region

```

212 <400> SEQUENCE: 12
213 gccggcgugg ccccgccuc

19

RAW SEQUENCE LISTING

DATE: 09/23/2004

PATENT APPLICATION: US/10/783,128

TIME: 16:43:09

Input Set : N:\FATIMA\10783128.txt

Output Set: N:\CRF4\09232004\J783128.raw

```

216 <210> SEQ ID NO: 13
217 <211> LENGTH: 19
218 <212> TYPE: RNA
219 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
224 <400> SEQUENCE: 13
225 ccggcguggc cccgccucc                               19
228 <210> SEQ ID NO: 14
229 <211> LENGTH: 19
230 <212> TYPE: RNA
231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
236 <400> SEQUENCE: 14
237 cggcguggcc ccgccuccg                               19
240 <210> SEQ ID NO: 15
241 <211> LENGTH: 19
242 <212> TYPE: RNA
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
248 <400> SEQUENCE: 15
249 ggcgugggccc cgcuccgcg                               19
252 <210> SEQ ID NO: 16
253 <211> LENGTH: 19
254 <212> TYPE: RNA
255 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
260 <400> SEQUENCE: 16
261 gcguggccccc gccuccgcc                               19
264 <210> SEQ ID NO: 17
265 <211> LENGTH: 19
266 <212> TYPE: RNA
267 <213> ORGANISM: Artificial Sequence
269 <220> FEATURE:
270 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
272 <400> SEQUENCE: 17
273 cguggcccccg ccuccgccg                               19
276 <210> SEQ ID NO: 18
277 <211> LENGTH: 19
278 <212> TYPE: RNA
279 <213> ORGANISM: Artificial Sequence
281 <220> FEATURE:
282 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
284 <400> SEQUENCE: 18

```

285 guggccccgc cuccgccgg
288 <210> SEQ ID NO: 19

19

RAW SEQUENCE LISTING

DATE: 09/23/2004

PATENT APPLICATION: US/10/783,128

TIME: 16:43:09

Input Set : N:\FATIMA\10783128.txt

Output Set: N:\CRF4\09232004\J783128.raw

```

289 <211> LENGTH: 19
290 <212> TYPE: RNA
291 <213> ORGANISM: Artificial Sequence
293 <220> FEATURE:
294 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
296 <400> SEQUENCE: 19
297 uggccccgcc uccgccggc 19
300 <210> SEQ ID NO: 20
301 <211> LENGTH: 19
302 <212> TYPE: RNA
303 <213> ORGANISM: Artificial Sequence
305 <220> FEATURE:
306 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
308 <400> SEQUENCE: 20
309 caaucaugcu gccgcggcg 19
312 <210> SEQ ID NO: 21
313 <211> LENGTH: 19
314 <212> TYPE: RNA
315 <213> ORGANISM: Artificial Sequence
317 <220> FEATURE:
318 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
320 <400> SEQUENCE: 21
321 aaucaugcug gccgcgcg 19
324 <210> SEQ ID NO: 22
325 <211> LENGTH: 19
326 <212> TYPE: RNA
327 <213> ORGANISM: Artificial Sequence
329 <220> FEATURE:
330 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
332 <400> SEQUENCE: 22
333 aucaugcugg ccggcgcg 19
336 <210> SEQ ID NO: 23
337 <211> LENGTH: 19
338 <212> TYPE: RNA
339 <213> ORGANISM: Artificial Sequence
341 <220> FEATURE:
342 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
344 <400> SEQUENCE: 23
345 ucaugcuggc cggcgcg 19
348 <210> SEQ ID NO: 24
349 <211> LENGTH: 19
350 <212> TYPE: RNA
351 <213> ORGANISM: Artificial Sequence
353 <220> FEATURE:
354 <223> OTHER INFORMATION: Description of Artificial Sequence: Target Sequence/siNA
sense region
356 <400> SEQUENCE: 24
357 caugcuggcc gccgcggc 19

```


360 <210> SEQ ID NO: 25

361 <211> LENGTH: 19

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/783,128

DATE: 09/23/2004
TIME: 16:43:10

Input Set : N:\FATIMA\10783128.txt
Output Set: N:\CRF4\09232004\J783128.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1003; N Pos. 19
Seq#:1004; N Pos. 18
Seq#:1005; N Pos. 17
Seq#:1006; N Pos. 16
Seq#:1007; N Pos. 15
Seq#:1008; N Pos. 14
Seq#:1009; N Pos. 13
Seq#:1010; N Pos. 12
Seq#:1011; N Pos. 11
Seq#:1012; N Pos. 10
Seq#:1013; N Pos. 9
Seq#:1014; N Pos. 8
Seq#:1015; N Pos. 7
Seq#:1016; N Pos. 6
Seq#:1017; N Pos. 5
Seq#:1018; N Pos. 4
Seq#:1019; N Pos. 3
Seq#:1020; N Pos. 2
Seq#:1021; N Pos. 1
Seq#:3512; N Pos. 20,21
Seq#:3513; N Pos. 20,21
Seq#:3514; N Pos. 20,21
Seq#:3515; N Pos. 20,21
Seq#:3516; N Pos. 20,21
Seq#:3517; N Pos. 20,21
Seq#:3518; N Pos. 20,21
Seq#:3519; N Pos. 20,21
Seq#:3520; N Pos. 20,21
Seq#:3521; N Pos. 20,21
Seq#:3522; N Pos. 20,21
Seq#:3523; N Pos. 20,21
Seq#:3524; N Pos. 20,21
Seq#:3525; N Pos. 20,21
Seq#:3526; N Pos. 20,21
Seq#:3527; N Pos. 20,21
Seq#:3528; N Pos. 20,21
Seq#:3529; N Pos. 20,21
Seq#:3530; N Pos. 20,21
Seq#:3531; N Pos. 20,21
Seq#:3532; N Pos. 20,21
Seq#:3533; N Pos. 20,21
Seq#:3534; N Pos. 20,21
Seq#:3535; N Pos. 20,21
Seq#:3536; N Pos. 20,21

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/783,128

DATE: 09/23/2004
TIME: 16:43:10

Input Set : N:\FATIMA\10783128.txt
Output Set: N:\CRF4\09232004\J783128.raw

Seq#:3537; N Pos. 20,21
Seq#:3538; N Pos. 20,21
Seq#:3539; N Pos. 20,21
Seq#:3540; N Pos. 20,21
Seq#:3541; N Pos. 20,21
Seq#:3542; N Pos. 20,21
Seq#:3543; N Pos. 20,21

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:3562; Line(s) 44550

VERIFICATION SUMMARY

DATE: 09/23/2004

PATENT APPLICATION: US/10/783,128

TIME: 16:43:10

Input Set : N:\FATIMA\10783128.txt

Output Set: N:\CRF4\09232004\J783128.raw

L:12111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1003 after pos.:0
L:12129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1004 after pos.:0
L:12147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1005 after pos.:0
L:12165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1006 after pos.:0
L:12183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1007 after pos.:0
L:12201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1008 after pos.:0
L:12219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1009 after pos.:0
L:12237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1010 after pos.:0
L:12255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1011 after pos.:0
L:12273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1012 after pos.:0
L:12291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1013 after pos.:0
L:12309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1014 after pos.:0
L:12327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1015 after pos.:0
L:12345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1016 after pos.:0
L:12363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1017 after pos.:0
L:12381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1018 after pos.:0
L:12399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1019 after pos.:0
L:12417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1020 after pos.:0
L:12435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1021 after pos.:0
L:42333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3512 after pos.:0
L:42351 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3513 after pos.:0
L:42393 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3514 after pos.:0
L:42435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3515 after pos.:0
L:42489 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3516 after pos.:0
L:42543 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3517 after pos.:0
L:42561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3518 after pos.:0
L:42579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3519 after pos.:0
L:42621 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3520 after pos.:0
L:42663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3521 after pos.:0
L:42723 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3522 after pos.:0
L:42771 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3523 after pos.:0
L:42825 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3524 after pos.:0
L:42873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3525 after pos.:0
L:42915 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3526 after pos.:0
L:42975 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3527 after pos.:0
L:43017 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3528 after pos.:0
L:43065 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3529 after pos.:0
L:43113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3530 after pos.:0
L:43161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3531 after pos.:0
L:43203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3532 after pos.:0
L:43257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3533 after pos.:0
L:43293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3534 after pos.:0
L:43335 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3535 after pos.:0
L:43413 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3536 after pos.:0
L:43485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3537 after pos.:0
L:43545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3538 after pos.:0
L:43635 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3539 after pos.:0
L:43689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3540 after pos.:0

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/783,128

DATE: 09/23/2004

TIME: 16:43:10

Input Set : N:\FATIMA\10783128.txt

Output Set: N:\CRF4\09232004\J783128.raw

L:43755 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3541 after pos.:0

L:43827 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3542 after pos.:0